

What is claimed is:

1. A drum type washing machine comprising:

a drum rotatably installed in a cabinet;

5 a driving motor installed at one side of the cabinet for rotating the drum;

a vapor generator installed at one side of the cabinet for generating vapor;

a diverging pipe installed at an upper side of the drum for supplying vapor

generated from the vapor generator to inside of the drum;

a first connection hose for connecting the vapor generator and the

10 diverging pipe;

a drain pipe installed at a lower side of the drum for draining wash water

inside of the drum;

a second connection hose for connecting the drain pipe and the diverging

pipe; and

15 a circulation pump installed between the second connection hose and the

drain pipe for circulating wash water drained from the drum.

2. The drum type washing machine of claim 1, wherein an injection

nozzle is formed at an end portion of the diverging pipe.

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3. A vapor generator of a drum type washing machine comprising:

a case provided with a space portion for storing water therein, a water

supplying portion for supplying water at one side thereof, and a vapor exhaustion

portion for exhausting vapor at another side thereof;

25 a water level detecting means installed at the case for detecting a level of

water stored in the case; and

a heater installed in the case for heating water stored in the case.

4. The vapor generator of claim 3, wherein the case comprises:

5 a lower case where the heater is installed;

an upper case coupled to the lower case;

a watertight member interposed between the lower case and the upper case; and

10 a case coupling means for coupling the lower case and the upper case.

5. The vapor generator of claim 4, wherein the case coupling means comprises:

a lower flange portion formed at an outer circumferential surface of the lower case and having a plurality of bolt holes;

15 an upper flange portion formed at an outer circumferential surface of the upper case and having a plurality of bolt holes; and

a bolt coupled to the bolt hole.

6. The vapor generator of claim 3, wherein the heater comprises:

20 a heat transmitting pipe arranged at a bottom surface of the case; and

a connector installed at both ends of the heat transmitting pipe to be connected to an external power source.

7. The vapor generator of claim 3, wherein a vapor storing groove for

25 storing vapor generated by the heater is formed at a position corresponding to the

vapor exhaustion portion at an inner surface of the case.

8. The vapor generator of claim 7, wherein a the vapor exhaustion portion is a pipe.

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9. The vapor generator of claim 7, wherein a diaphragm for preventing water inside of the case from being introduced into the vapor exhaustion portion is formed at an inner surface of the case.

10 10. The vapor generator of claim 9, wherein a plurality of slots are formed at the diaphragm.

11. The vapor generator of claim 10, wherein the slots are formed in a longitudinal direction.

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12. The vapor generator of claim 3, wherein the water level detecting means is a water level detecting sensor.

13. The vapor generator of claim 12, wherein the water level detecting 20 sensor comprises:

a body coupled to an upper portion of the case; and  
three detecting rods longitudinally installed at the body.

14. The vapor generator of claim 13, wherein said three detecting 25 rods are arranged at the body with 120°, and a diaphragm is installed at a lower

portion of the body for covering the detecting rods.

15. The vapor generator of claim 14, wherein the diaphragm is provided with slots in a longitudinal direction.

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16. The vapor generator of claim 13, wherein the detecting rods comprises:

a first detecting rod which has a longest length;

a second detecting rod which has a middle length; and

10 a third detecting rod which has a shortest length.

17. The vapor generator of claim 16, wherein a water supply time point inside of the case and an 'on' time point of the heater are detected by the first and third detecting rods, and an 'off' time point of the heater is detected by the 15 first and second detecting rods.

18. The vapor generator of claim 3, wherein a mounting bracket is formed at one side of the case.

20 19. A vapor generator of a drum type washing machine comprising:

a case provided with a space portion for storing water therein, a water supplying portion for supplying water at one side of an upper portion thereof, a vapor storing portion for storing vapor at another side of the upper portion thereof, and a vapor exhaustion portion for exhausting vapor at the vapor storing portion;

25 a water level detecting means installed at the case for detecting a level of

water stored in the case;

a heater installed in the case for heating water stored in the case; and  
a diaphragm formed at an inner upper surface of the case.

5 20. The vapor generator of claim 19, wherein the diaphragm is  
provided with slots in a longitudinal direction.